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linear actuator to shift the left side plate towards the left open position while the right side linear actuator shifts the right side plate towards the right open position. Similarly, when the side shift control is disabled, the controller will only allow the left side linear actuator to shift the left side plate towards the left closed position while the right side linear actuator shifts the right side plate towards the right closed position. This limitation on the operation of the left and right side linear actuators allows the core clamp and side shift assembly to be placed in either the open position shown in the OPEN view of FIG. 9 or the closed position shown in the CLOSED view of FIG. 9. When the core clamp and side shift assembly is in the open position shown in the OPEN view of FIG. 9, the brush can be easily removed from the assembly and replaced. Also in the maintenance mode of operation, the limits on the amount of elevation controlled by linear actuator 34 are disabled (so that linear actuator 34 may move through its entire range of motion).

Although this description contains many specifics, these should not be construed as limiting the scope of the invention, but as merely providing illustrations of the presently preferred embodiment thereof, as well as the best mode contemplated by the inventors of carrying out the invention. The invention, as described herein, is susceptible to various modifications and adaptations, as would be understood by those having ordinary skill in the art to which the invention relates, and the same are intended to be comprehended within the meaning and range of equivalents of the appended claims.

What is claimed is:

1. A broom assembly for attachment to a vehicle, which assembly is adapted to rotate a brush having a tubular core, said broom assembly comprising:

- (a) a center section;
- (b) a pair of side plates, including a left side plate and a right side plate;
- (c) a pair of hubs, including an idle hub on one of the side plates and a drive hub on the other of the side plates, said pair of hubs defining a core axis about which the brush is rotated;
- (d) a first linear actuator that is adapted to move the left side plate with respect to the center section along an axis that is parallel to the core axis between a left open position and a left closed position;
- (e) a second linear actuator that is adapted to move the right side plate with respect to the center section along an axis that is parallel to the core axis between a right open position and a right closed position.

2. The broom assembly of claim 1 wherein:

- (a) the idle hub:
 - (i) includes an idle hub back plate;
 - (ii) includes an idle hub central tube that is attached to the idle hub back plate and is adapted to receive one end of the tubular core of the brush;
 - (iii) includes a plurality of idle hub core support plates that are attached to the idle hub back plate and spaced around the idle hub central tube and oriented radially with respect thereto, with each such idle hub core support plate having an inner radial edge adjacent to the idle hub central tube that is tapered outwardly from the idle hub back plate;
 - (iv) is adapted to rotate with respect to the side plate with which it is associated;
- (b) the drive hub:
 - (i) includes a drive hub back plate;
 - (ii) includes a drive hub central tube that is attached to the drive hub back plate and is adapted to receive one end of the tubular core of the brush;

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- (iii) includes a plurality of drive hub core support plates that are attached to the drive hub back plate and spaced around the drive hub central tube and oriented radially with respect thereto, with each such drive hub core support plate having an inner radial edge adjacent to the drive hub central tube that is tapered outwardly from the drive hub back plate and an outer radial edge that is tapered outwardly from the drive hub back plate;
- (iv) includes a rotary actuator that is adapted to rotate the drive hub with respect to the side plate with which it is associated.

3. The broom assembly of claim 1 which includes a cover assembly comprising:

- (a) a stationary cover that is fixed to the center section;
- (b) a left side support that is attached to the left side plate;
- (c) a left sliding cover that is attached to the left side support and adapted to slide with respect to the stationary cover as the left side plate moves with respect to the center section;
- (d) a right side support that is attached to the right side plate;
- (e) a right sliding cover that is attached to right side support and adapted to slide with respect to the stationary cover as the right side plate moves with respect to the center section.

4. The broom assembly of claim 1 which comprises means for pivoting the center section about a generally vertical pivot axis.

5. The broom assembly of claim 1 which comprises:

- (a) a lift assembly having a rear end and a front end, wherein the rear end is adapted to be attached to the vehicle, and the front end is attached to the center section;
- (b) means for raising and lowering the center section with respect to the vehicle.

6. The broom assembly of claim 1:

- (a) which includes a left upper rod that is generally parallel to the core axis and is attached to the left side plate;
- (b) which includes a left lower rod that is generally parallel to the core axis and is attached to the left side plate;
- (c) which includes a right upper rod that is generally parallel to the core axis and is attached to the right side plate;
- (d) which includes a right lower rod that is generally parallel to the core axis and is attached to the right side plate;
- (e) wherein the center section includes:
 - (i) a left upper tube that is generally parallel to the core axis and is adapted to receive the left upper rod in sliding engagement therewith;
 - (ii) a left lower tube that is generally parallel to the core axis and is adapted to receive the left lower rod in sliding engagement therewith;
 - (iii) a right upper tube that is generally parallel to the core axis and is adapted to receive the right upper rod in sliding engagement therewith;
 - (iv) a right lower tube that is generally parallel to the core axis and is adapted to receive the right lower rod in sliding engagement therewith.

7. The broom assembly of claim 1 which comprises:

- (a) a lift assembly having a rear end and a front end, wherein the rear end is adapted to be attached to the vehicle, and the front end is attached to the center section;
- (b) a third actuator that is adapted to raise and lower the center section with respect to the vehicle;